Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Class Period \_\_\_\_\_\_

Test Review: Linear Patterns, Expressions, and Functions

1. Study the pattern and draw the next step. 2. Describe how the pattern

is growing each step.

Step 1 Step 2 Step 3 Step 4 Step 5

3. The total number of tiles in the figure depends on the step .

Write an equation for as a function of

Show work here to

test your equation.



Use the pattern

to find the 0-step.

4. Complete the table. 5. Complete the Graph

|  |  |
| --- | --- |
| Step Number | Total Tiles |
| 0 |  |
| 1 |  |
| 2 |  |
| 3 |  |
| 4 |  |
| 5 |  |
|  | 19 |

Does your graph

Have the dependent and independent variables in the right place?

Did you choose an appropriate scale?

Is it evenly spaced?

Is the scale clearly

Numbered?

Is each axis of your graph labeled so that reader knows what it represents?

6. Is this pattern linear? YES NO

Do you connect the points? YES NO

Use a pink highlighter or colored

pencil to show the growth rate on

each representation, (picture, words,

equation, table, and graph).

7. The ordered pair would

appear on a larger graph of this

pattern. Explain what this point

means in this context.

The Seaside Café uses small square tables. Each side of the square table can comfortably seat one person. When large parties come in, several tables are pushed end-to-end, and people wit around the new bigger table.

7. Study the pattern and draw the next step. 8. Describe how the pattern

is growing each step.

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Step 1 Step 2 Step 3 Step 4

9. The total number of people that can be seated

depends to the step number . Write an equation

for as a function of .

Show work here to test your equation.

Use the pattern to find the 0-step.

10. Complete the Table. 11. Complete the Graph.



Does your graph have the dependent and independent variables in the right place?

Did you choose an appropriate scale?

Is it evenly spaced?

Is the scale clearly numbered?

Is each axis of your graph labeled so a reader knows what it represents?

|  |  |
| --- | --- |
| Step Number | Total People |
| 0 |  |
| 1 |  |
| 2 |  |
| 3 |  |
| 4 |  |
| 5 |  |
|  | 20 |

12. Is this pattern linear? YES NO

Do you connect the points? YES NO

Use a pink highlighter or colored

pencil to show the growth rate on

each representation, (picture, words,

equation, table, and graph).

13. Would the ordered pair

appear on a larger graph of this

pattern? YES NO

Explain how you know.